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Reconstruction Aids Legislation

BY RUTH EARLE

FELLOW Civilans, ex-army P. T.'s, and all others who are interested, lend me your ears! Yea, verily, and into them I shall pour a tale at once both sad and courageous. A tale, indeed, to sway the emotions of any mob, be they Romans or pioneering P. T.'s.

And right here may I state that if I have not already called down the entire wrath of the gods at Washington, i. e., the Surgeon General's office, it is no fault of mine, for I have taken it upon myself, for the past five years to peg away at everybody in general, in order to bring about a recognition for Reconstruction Aides in particular, in the form of military status and the rights and emoluments tc be derived therefrom.

Inasmuch as the disabled problem in the ranks of all Reconstruction Aides has been one not lawfully aided, it was my personal aim to establish a claim in Washington which would be carefully considered and eventually granted, that those R. A.'s who had incurred disability in service might receive the benefits of the Veterans' Bureau in all the considerations which that department offers to all disabled regularly enlisted ex-service women and men.

In establishing such a claim, it was necessary that information concerning the nature of our status and work in connection with the Army be given a clear and comprehensive survey. Also in the granting of that claim, it was necessary to secure active legislation which would give us, disabled and able bodies, the recognition of rank through the changing of our status to that of military status.

A thorough and detailed review of the field of activity in which R. A.'s labored, also, every possible condition, past, present and future, pertaining thereto, was prepared and sent broadcast to the President of the United States, Members of the Cabinet, Senators, Congressmen, Veterans' and Welfare Organizations, and to many ex-service people and other civilians. This was done as early as 1920.

The answers to those letters were illuminating indeed, such as: "We are very glad etc., What are Reconstruction Aides?" and "It is news to me that such a group of women existed." Also, "Please explain what you mean by Reconstruction Aides. Never

heard of them before." All of which of course, smacked of the good old days when we were labeled "Belgian war widows" and lady detectives.

Almost constantly, a steady flow and exchange of enlightening information has been kept in circulation, since those first feeble attempts.

The Surgeon General's office has opposed any legislation which would give us military status. The following communication in part gives concisely the attitude of that office in this regard:

"Should The American Legion have in mind any remedial action which would have the effect of changing the status of this class of personnel to anything other than that of civilian employees, then it should be stated that such action cannot have the sympathy of this office. A number of complaints have come forward from time to time in behalf of women employees of the Medical Department, especially against what they deem discriminatory treatment, which they have suffered as compared with the members of the Army Nurse Corps. These complaints have concerned principally rights to compensation for death or disability, and to insurance under the War Risk Act, rights to payment of the $60 bonus provided on discharge of military personnel by the act of February 24, 1919, rights to reduced railroad fares allowed under the regulations of the United States Railroad Administration to officers, enlisted men, and members of the Army Nurse Corps while on furlough, to Victory Medals under the law and regulations applicable thereto, and to state bonuses. These complaints appear to be based upon the view that, since under the laws passed by Congress members of the Nurse Corps have military status and rights and emoluments derived therefrom, therefore certain other classes of women employed by the medical department, such as clerks, reconstruction aides, laboratory technicians, student nurses and dietitians should have the same rights and emoluments. This office is unable to perceive, however, why the particular classes of employees mentioned should be singled out for preferential treatment from all the employees connected with the military establishment during the war. It is not apparent, for example, that the women employees of the Medical Department should stand on a different footing in this respect from the men employees; or that the employees who served abroad in hospitals, men and women, should stand on a different footing

from those who were exposed to like hazards in the hospitals at home; or indeed that the employees of the Medical Department should stand on a different footing in respect to these benefits from the employees of the Quartermaster Corps, or the Ordinance Department, or the Engineering Department or the Finance Service, of whom there were hundreds of thousands. The employees in whose behalf the basic letter was written are a small class, numbering less than twenty one hundred all told, but to treat them differently from the other employees of the Department would make a positive and absolute discrimination in favor of one small class of civilian employees. Such preferential treatment would only engender a great demand from the other classes of employees in the entire military establishment for legislation to put them on an equal footing."

The Honorable Schuyler Merritt, Congressman from Connecticut, is introducing now in Congress, Bill H. R. 749, an act to amend the War Risk Insurance Act to include Reconstruction Aides. The bill was killed in 1921, and, its passage at this time would insure not only military status to us, but provision against disability in rendering the necessary care and support of service disabilities by the Veterans' Bureau.

There are a few Aides who are disabled, and have received treatment and compensation through the United States Employee's Compensation Commission. But this care was extended by courtesy only, and has since been completely eliminated through the decision of the Comptroller General to disallow all payment of claims where the disability is occupational disease and not accident as the disability clause enacted as a law of the Commission reads. Therefore, these cases, many of which have been pronounced tuberculosis are left virtually stranded. There may be many other cases of disability we know nothing of, but we want to help them all.

Of course this Act of the Commission does not carry the same benefits as the War Risk Act, and rightly so. It was not designed nor created for war relief cases, as the cases of our girls most decidedly are, and it has its limitations.

These conditions are both heartless and unpatriotic. Melodramatic as that may sound, it is nevertheless true and a remedy must be found to alter the situation, and bring about the necessary and generous relief of these disabled buddies of ours.

The Veterans' organization including the American Legion, the Disabled American Veterans of the World War, the Veterans of Foreign Wars, and the American Red Cross, have all given deep and earnest study and support to our problems, and are now, through the World War Committee in Congress, pushing our bill to the limit of their powers.

How can we answer the War Department? And, what are we going to do individually and collectively to support our own interests.

Just stop a moment in your busy lives, and think of what it would mean to you to lie flat on your back, not for days, but for years, waiting and hoping for so little as a normal temperature, and so on, for ever so slow results that you might once more lift your head from your pillow and be able to smile with the world.

Then if you value your health and good fortune in this regard, get busy and do your bit. It is something that will be yours as well as theirs.

There is little time left to do what you are going to do, so decide now, and then do it!

Write to your Senators and Congressmen, asking them to support vigorously the following bills:

H. R. 749, H. R. 7041, and S. 2508.

H. R. 749 will amend the War Risk Insurance Act to include Reconstruction Aides, and if passed is retroactive to October 1917. This bill means military recognition.

Show Congressman Schuyler that you admire his spirit and interest to bring up again, a bill in your favor which was once defeated. Give him your support as well.

H. R. 7041 and S. 2508, both will amend the Act of the Commission to include occupational disease as well as accident as compensational. It also curbs the power of the Comptroller General in reviewing cases, and refusing payment of disability claims in the care of disease. These bills go a great ways toward eliminating sheer neglect of duty, and establishing a definite and permanent means of solving the disabled problem. It is, however, limited to the disabled and purely civilian in nature.

At last we are known for what we are, and have been in these past years of history, and Washington is on the alert with interest and action, to see what is to be done for us.

Now is the time to strike and strike hard for what we want. Do you want it? Good! Then go after it, and may all P. T. and O. T. blessings go with it, and return victoriously.

Convention

There is still time for those who have not planned to attend our third annual convention, to change their mind and write to the Drake Hotel, Chicago, for reservations. Come and bring as many friends as you can. Below is an outline of the program which promises to be most valuable and instructive. Show our speakers that you appreciate their courtesy by attending the meetings.

Program

JUNE 10

10 A. M. Registration at headquarters—the Drake.

2. P. M. Opening Address. Dr. Ray Lyman Wilbur, Stanford University, Cal.

The Curative Workshop in Rehabilitation—illustrated. Dr. Fred H. Albee, New York.

Possibilities in Treatment of Cerebral Paralysis—illustrated. Dr. Shepherd Ivory Franz, Washington, D. C.

After Care of Infantile Paralysis and Orthopedic Follow Up. Miss Edna L. Foley, Chicago, Ill.

Physiotherapy in Mental and Nervous Diseases with special reference to Treated and Treater. Dr. Julian M. Wolfson, San Francisco, Cal.

The Rationale of Physiotherapy—illustrated. Dr. Frank B. Granger, Boston, Mass.

JUNE 11

10 A. M. Business meeting.

4 P. M. Visit to the McIntosh Electrical Corporation, where Dr. T. C. Cornell will give several demonstrations.

7 P. M. Dinner at the Drake Hotel.

Sacro-Iliac and Lumbo-Sacral Strain

By S. L. OSBORNE, B. P. E., Head of Department of Physiotherapy, Oregon State Industrial Accident Commission.

STRAINS and sprains of the lower back and sacro-iliac region are perhaps among the most common ailments presented to the industrial and orthopedic surgeon. Treatment is extremely difficult. These cases often tax the ingenuity and patience to the utmost limit. A great majority of these cases have a typical history. The patient, while lifting a heavy weight in a stooping position, feels a sudden snap, or pain, in the small of the back and finds difficulty in again assuming the upright position. If the strain has been very severe, he may fall down and have to be assisted to his feet. The great majority of cases are able to get up and walk without assistance. In cases of less severity, the patient will often attempt to resume work and may even continue for ten days or two weeks, when under increasing pain and discomfort he is forced to seek advice. Such cases should seek the aid of an orthopedic surgeon, but, unfortunately, only a few patients reach him direct owing to their lack of information. The fact that a large number reach the orthopedist a long period of time following the initial injury has a tendency to make treatment difficult and discouraging to both the patient and surgeon. Occasionally, the chiropractic route is chosen, but one or two treatments will usually satisfy the patient.

Signs of Sacro-iliac Strain

The poor posture of a great majority of these cases is an outstanding feature. The muscle tonus is low. The abdomen frequently is protuberant. Very often the lumbar curve is extremely flat. The patient walks with a stiff back. He has difficulty in sitting or lying down and often greater difficulty in getting up. The pulling on and taking off of shoes is an impossible feat. The loss of weight is often quite marked. Spasm of the sacrosprinalis muscles is nearly always present and in proportion to the degree of trauma. There is usually a body list to the side of injury. Nearly all movements of the trunk are very much restricted due to pain. This is, perhaps, more particularly true of forward flexion which may even be impossible after the first few degrees of movement. Frequently, in true cases of sacro-iliac strain, straight leg raising in the supine

position, particularly on the injured side, will be greatly restricted as well as cause severe pain in the region of the sacro-iliac joint and often along the course of the sciatic nerve. Hyper-extension of the lumbar spine in the supine position causes pain in the sacro-iliac joint. In the prone position, palpation of the injured sacro-iliac joint will disclose definite localized tenderness. It is not uncommon to have complaint of pain along the entire course of the sciatic nerve. Referred pains are perhaps less often complained of along the anterior region of the thigh. A few cases will show marked postural deformities.

Causes

1. THE DIRECT RESULT OF TRAUMA.

While normally the sacro-iliac joints have but a very limited amount of motion and are extremely strong, yet when an unusual demand is suddenly placed on them, it is quite possible to produce an actual sprain similar to that in any other joint of the body. If this type is properly treated at once, the chances for a complete recovery are as excellent as in most other joints.

2. POSTURAL DEFECTS SUPERIMPOSED BY TRAUMA.

One cannot read the classic research of Goldthwaite and his co-workers and not be convinced that posture plays a tremendous part in sacro-iliac strain. Many painful backs show on examination the results of poor postural habits and such cases need only a slight degree of added strain to that already borne by the overtaxed structures to produce sacro-iliac or lumbo-sacral strain. The great majority of these cases present one of two pictures:

(a) The so-called "flat" lumbar curve. The lumbar curve is low and almost obliterated. In the erect poise the anterior part of the sacrum and anterior part of the fifth lumbar vertebra is almost directly over the top of the trochanters. The upper surface of the sacrum which articulates with the fifth lumbar vertebra faces forward from the horizontal about 30°. From this articulation, the lumbar spine inclines upward and forward with a gradual change to a backward inclination as the dorsal region is reached. With the flattening of the lumbar curve, not only does the pelvic axis change but also the axis of the abdominal cavity and the angle between these two is very materially lessened. The upper body is inclined

forward much more than is normal. The upper part of the sacrum must move backward at the top while the plane of the lumbo-sacral articulation more nearly approaches the horizontal. The long axis of the pelvis looks upward more than normal. This pelvis tilting and lowering of the lumbo-sacral articulation may cause a difference in height as great as from three-fourths of an inch to one inch. These changed relationships must produce great strain upon the ilio femoral ligaments and the extensor muscles of the hip, as well as a tendency to flaring of the ilia. This continuous strain must ultimately produce elongation of both the extensor muscles and ligamentous structures. It may be that the strain on these structures give rise to the points of tenderness so commonly found. Another important factor must not be lost sight of, namely, that the weight of the viscera is borne too much by the perineal muscles instead of by the pubic arches and rami.

In view of the foregoing, is it any wonder that the body working sometimes for years under such mechanical stress and strain fails to meet some unexpected and sudden demand? It is wonderful what abuse the human mechanism does stand. Moreover, it is not difficult to see why such conditions are frequently so difficult to combat. It is hardly logical to expect a speedy recovery.

(b) Lordosis is another condition so frequently encountered in the examination of backs. In this condition, the pelvis maintains its normal relation to the legs but the hips are carried too far back, giving the pronounced lumbar curve. The weight line falls in front of the thoracic, considerably behind the lumbar spine, and more or less in front of the hips as well as the knee joint. Here we have too great tension on the sacro-iliac ligaments. The upper back and abdominal muscles are of relatively low tone and habitually relaxed. Inasmuch as the abdominal muscles play a very important part in the proper support of the abdominal viscera, their loss of tone, with a consequent sagging of the viscera, may set up a vicious physiological cycle. As Goldthwaite has so well stated, a chronic toxemia can be set up. With such a condition present, some very simple strain can become a most difficult matter to treat because the focus of infection may keep such a condition indefinitely active.

3. FOCAL INFECTION

Focal infection is often an unsuspected contributing factor in

many cases resisting treatment. It is hardly necessary to state the need of a careful examination of both teeth and tonsils. In all cases of suspicious looking teeth, it may be well to have them X-rayed. A foul mouth and tonsils can keep a back very painful indefinitely. It is this type of patient that frequently presents the picture of osteo-arthritis with hypertrophic lipping of the vertebral bodies.

4. SUBLUXATION OF THE VERTEBRAL FACETS.

Mennell, in his text-book on Massage, discussing sacro-iliac strain, raises the question as to the possibility of subluxation or slipping of the articular facets in the lumbar region. Their plane is very nearly vertical and the joints are not very closely approximated. Moreover, the capular ligaments are looser in this region than elsewhere in the spine. He seems to think that such a possibility, owing to some slight anatomical defect of their articulating surfaces, is not a remote one. There are certain cases that with one manipulation are very materially improved, if not entirely relieved. Quite often a definite audible click is heard during the manipulaton. Mennell also states that such a subluxation or locking might produce an arthritis which would give rise to reflex spasm, particularly in the deeper muscles of the back.

5. SACRALIZATION OF THE FIFTH LUMAR TRANSVERSE PROCESS WITH THE ILIUM.

Occasionally, the X-ray will disclose that the transverse process of the fifth lumbar process is in contact with the ilium. While this, of course, is congenital, yet it is quite possible that there is a bursa or even a joint at their point of contact which of course would be subject to strain as any joint.

Treatment

The symptom complex is such that perhaps one of the most difficult problems to solve is the underlying cause or causes of the condition. There is, however, one outstanding symptom in all of these cases and that is pain with movement. Pain can only mean irritation. Therefore, it seems that in severe cases perhaps the first course to follow is immobilization in a plaster cast and rest in bed. It will probably be wise to keep the patient in bed for fully a month to allow reconstruction to take place. If the patient improves steadily following this procedure, the body cast can be

split down the center and leather buckles applied and physical therapeutic measures, such as radiant heat, diathermy, and massage instituted daily. The milder cases are frequently very much relieved by the proper application of an adhesive tape dressing. This must be snugly applied and include both anterior superior spines. It should also extend well above and below the sacro-iliac joints. Where there is a great deal of restriction to straight leg raising, a great deal of time and unnecessary suffering is often saved a patient by administering an anaesthetic and forcing manipulation of the sacro-iliac joints. Sometimes passive straight leg raising is advised without the aid of an anesthetic as part of the daily treatment. This heroic treatment, while it may be productive of some success, I believe to be of little value. The pain is so severe that unconsciously the patient will resist and the real object, nerve stretching, is not accomplished. In some cases this should be followed by the application of a plaster body cast and physiotherapeutic measures as stated above. Other cases, on the other hand, will not need the cast. This is, of course, entirely a matter of opinion with the attending surgeon. In our own clinic, both procedures are followed and secure a large measure of success. Rare cases will show an apparent inequality in the length of the two legs, due to muscular contraction. Merely raising the heel of the shoe will sometimes afford wonderful relief. A great many cases are the result of too much movement in the sacro-iliac joints and these will often find almost instantaneous relief when supplied by a properly fitted sacro-iliac belt which will really have the maximum pressure laterally across the ilia. These should fasten behind the back and not across the abdomen. The cases presenting evidences of focal infection must of course have the source of infection removed. The arthritic cases may respond to salicylates with a fair degree of success in conjunction with rest and physiotherapy. There are, however, cases of sacro-iliac strain showing no pathology of the bones that will not apparently respond to any of these conservative measures. In these cases it seems wise after a persistent resistance to conservative treatment for a year, that more radical surgical measures should be instituted, namely, arthrodesis of the sacro-iliac joint. During the past two years, five so-called Smith-Peterson operations for an arthrodesis of the sacro-iliac joints have been performed in our own clinic on as many patients, all of which have been successful.

In cases of sacralization it may be necessary to remove the offending transverse process before relief can be secured. In all cases, too much stress cannot be placed upon the necessity of not only securing anterior-posterior X-ray pictures of the spine but also lateral views.

Very little has been said in regard to the place of physiotherapy in treatment of these cases and that is largely because I believe that physiotherapy is only an auxiliary to the other more important measures. Physiotherapy, consisting of some form of heat, followed by massage should be given daily whenever possible. These measures offer temporary relief. They will relieve muscle spasm and help to maintain the tone and muscular nutrition. Some textbooks advocate postural training or some special form of exercise. From my own experience, I cannot say I have seen very much accomplished by the most carefully supervised exercise, and I have seen a great many patients grow worse under its regime. Unquestionably, one of the greatest, if not the greatest, contributing factor to sacro-iliac strain is one of poor and faulty posture, but it seems to me the time to make correction of these defects is after an apparent cure has been established and not during the active painful period.

NEW MEMBERS

Monro, Edith, 60 The Fenway, Boston, Mass.
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We have on hand the following numbers of the "P. T. Review" —Sept. and Dec., 1921, June, Sept., and Dec., 1922, June, Sept. and Dec., 1923, Mar., 1924. Anyone wishing copies at 50c per copy kindly write Miss Winifred Tougas, 9 Bellingham St., Newton Highlands, Mass.

S. O. S.

Physiotherapist, four years experience including Army Service, wishes position, preferably corrective gymnastics for children. Apply to secretary.

Physiotherapy in Industrial Surgery

BY PAUL B. MAGNUSON, M. D. AND JOHN S. COULTER, M. D., F. A. C. S.*

PHYSIOTHERAPY proved its value during the war in the treatment of war injuries, and is now proving its value in the treatment of practically the same class of injuries in industry. Physiotherapy includes treatment with heat, massage, electricity, exercises, water and light.

Physiotherapy according to its time of use may be classified as—

(1) Preventive, which is not used in injuries as much as it should be. It is all too frequent for us to see cases of fractures many weeks after the injury, in which the disability is not from the fracture, but from stiff joints due to lack of use. The patients all tell the same story: "I wore a splint for six weeks, then the doctor told me to use my arm (or leg) at home." Unfortunately, after six weeks immobilization a joint is stiff, use causes pain and the pain prevents the patient from using it. It should be recognized that skilled physiotherapy can be given at a far earlier period than is usually allowed. During the war we learned that in infections preventive physiotherapy saved many marked disabilities.

(2) Corrective or curative physiotherapy is that which is used to correct or cure disabilities following injuries, and is, of course, closely associated with the preventive. The more preventive physiotherapy is used, the less corrective is necessary. To correct or cure a disability from an injury is a more difficult task and takes much more time than to prevent the same disability.

CLASSES OF INJURIES NEEDING PHYSIOTHERAPY

(1) *Sprains.*—Sprained joints, if placed at rest and lotions used, usually owe their subsequent stiffness to the treatment, not to the injury.

To restore a sprained joint to normal motion we use diathermy ten to thirty minutes; massage which should be derivative and not local, and early motion. This motion should be passive and limited by the onset of pain. If this rule is observed no damage is done to any torn ligaments.

* Reprinted in part by permission from International Clinics, Vol. III, Series 31.

(2) *Dislocations*—Massage and exercises should be started *at once* after reduction, under the care of the surgeon. In fact, all joint motions in a recently reduced location should be done by the surgeon himself after baking and massage of the injured joint. The greatest care is essential lest the dislocation recur; therefore, motion should be gradual and not at too great an angle before a week or ten days have passed.

The function of a joint is motion and a joint not moved will become stiff, also the muscles moving a joint are usually supplied by the same nerves as the joint itself, and there is a reflex atrophy of these muscles. This can only be prevented by massage, electric stimulation and proper motion. This is especially important in the shoulder joint as the stability of that joint is dependant upon the surrounding muscle tone.

One case we recently saw on examination had a posterior dislocation of the elbow joint, properly reduced, and then treated with his elbow flexed, fingers extended and bound to his side for four weeks. Then he was given a sling and told to use it. It pained on extension and his fingers hurt on flexion, so four weeks later, he came to our clinic, and it took three months of daily physiotherapy to restore him to within 25 per cent. of normal motion in the elbow, wrist and fingers.

(3) *Ankylosis of Joints.*—Most of the industrial cases in which this form of treatment is now used, are those having stiff joints. These cases in most instances would have been avoided by proper physiotherapy during the treatment for the original injury, using the same means now used to cure the stiffness. In other words, the insurance companies and employers are now paying a high cost for this treatment as a curative and corrective measure, when they should have included in the original treatment cost the same measure used as a preventive treatment against stiff joints. To pay a surgeon the cost of a visit to a fracture or a dislocation case in which he only looks at the splint, is not only a waste of money, but is eventually going to cost many more visits of someone skilled in physiotherapy to cure the stiff joints following prolonged immobilization. It is not supposed that the surgeon will give massage, but he should see that it is given and he should either give or supervise all joint motions in recent cases.

In all treatment of stiff joints, cases of bony ankylosis and

those cases where there is some contra-indication by a pathological process, such as tuberculosis, should be excluded. Where there is a bony obstacle it is useless without surgery to attempt to gain motion beyond the bony blocking. So we have to treat here by physiotherapy, stiffness caused by adhesions inside or outside the joint, by inflammatory changes or by retraction of scar tissue.

In our clinic for the treatment of stiff joints and the prevention of stiff joints in closed cases, we use in addition to baking, massage and hydrotherapy, a negative galvanic current with a clay electrode.

Fractures are now usually treated by one of three methods:

(1) Complete immobilization, until fragments are united, by splints or plaster casts.

(2) Relative immobilization by traction, best seen with the Thomas splint and traction.

(3) With physiotherapy added to one of the above.

By far the most fractures that we have sent to us for corrective treatment come under the first class.

When a bone is broken the surrounding structures are injured also. Rigid fixation by splints or plaster without physiotherapy withholds from these structures the treatment by which repair can be accomplished, and thus we have added to the original injury, adhesions and atrophy of disuse.

Massage and indirect diathermy in the first stage of a fracture hastens the absorption of the hematoma and injured tissue cells, and improves the metabolism of the injured parts. Thus it diminishes the pain and lessens the muscle contraction and consequently aids in the reduction and retention of the fragments. Fixation and rest diminish the blood supply, hence do not aid in the above.

Joint motion in a limb where there is a fracture prevents joint stiffness and muscle atrophy. This mobilization does not tend to disturb the alignment of the fragments, unless the conditions are such that an open operation is necessary to restore the fragments to proper position.

With massage, electrical muscle stimulation and joint motion, muscle atrophy and joint stiffness are prevented and the limb is ready for use when there is union. With complete immobilization there is marked muscle atrophy and joint stiffness and we get the result of a good union but a marked permanent disability from stiff joints.

There is one great requirement for this form of treatment for fracture cases—skill. If it takes a skilled surgeon to perform an open operation for an ununited fracture, so the surgeon who treats fractures by mobolization must be experienced and skilled.

We have recently seen two cases which will illustrate the above principles.

Case C. W., injured November 17, having a fracture of the surgical neck of the right humerus. He was treated by his family doctor, a general practitioner, with his arm bound to his chest, elbow flexed, fingers extended for four weeks, then in a sling for the three weeks following. January 28, he was sent to our clinic for corrective physiotherapy. He had an excellent union of his fracture, but an almost total loss of use of his arm. In his shoulder joint abduction and flexion were possible only 20 degrees, right elbow showed only 50 per cent. motion, fingers practically no flexion.

Three months' treatment was necessary at a cost of $150. After he was discharged from his original treatment we estimated he had 80 per cent. loss of use of his arm, and after three months of daily physiotherapy treatment we were able to reduce this to 25 per cent. loss of use. At least half of this was from loss of motion in the elbow, wrist and fingers, which were never injured. Thus the original treatment added disability to other parts while curing the injury.

Case J. M., injured June 29, with exactly the same injury to his right humerus, but added to this was a right Colle's fracture. He was treated from the start at our clinic by early massage, mobilization and electric stimulation of his muscles with the result that he returned to work on August 31, with only a 5 per cent. total permanent loss of use of his arm.

This man was sent to work, and did his normal work as a roofer, two months after his injury, which was about two weeks before case C. W. started his massage. He had the same injury plus another in the same arm, yet he returned to work three and a half months before the other with a 20 per cent. less permanent disability and with the cost of only the original treatment, because his arm was daily taken from the splint, massaged by an experienced masseuse, and careful joint motions given by the surgeon.

Peripheral Nerve Injuries.—Corrective splinting and physiotherapy are absolutely essential in the treatment of these conditions.

As long as there are progressive signs of nerve regeneration no surgical interference is permissible, when these have ceased to advance or have not appeared, operation is indicated. In the after treatment of nerve injuries whether operated or not, the essentials are (1) physiological rest in splints to completely relax the paralyzed muscles and to prevent the active muscles from contracting; (2) restoration of function by physiotherapy.

The health of the motor muscles and nerves depends on use and degeneration follows disuse. The repair is a nutritional problem; therefore, electric stimulation and hyperemia are essential for restoration of function.

In our clinic we have these cases report for daily treatment, giving them baking, massage, joint movements, and slow sinusoidal electric stimulation. If the patient is from out of town and cannot come daily over the long period necessary for the treatment of these injuries, we teach him or a member of his family the use of the Bristow Coil (see issue *International Clinics*, vol. ii, series 30, June, 1920, Fig. 10-a). He uses this at home and reports twice monthly. In the previous issue we have given our treatment in detail with an illustrative case (see page 21, Case H. M.).

Muscle and Tendon Injuries.—In the after treatment of muscle and tendon sutures movement should always be started in the direction that relaxes the sutured tendon, and thus not put any strain on the suture line. To turn over one of these cases to one who has had no special training is merely to court disaster. This movement should be started not later than three days after the operation, thereby preventing adhesions.

Amputations.—In the after treatment of amputation stumps the whirlpool bath was found to give the most satisfaction. These baths give a continuous bath of high temperature with a strong water current.

Malingering.—If these cases are given daily treatment, and consistent daily notes kept on their complaints and accurate observations made on their localization of tenderness, they will be shown to be malingering in a week's time, as their attention is distracted by the treatment and they will fail to correctly localize their supposed pain and tenderness.

Graduating Exercises of the Second Annual Training Course in Physio Therapy

WALTER REED GENERAL HOSPITAL ARMY MEDICAL CENTER,
WASHINGTON, D. C.*

The graduating exercises of the second annual training course in Physio Therapy were held at the Army Medical Center, Walter Reed General Hospital, Washington, D. C., on February 15, 1924.

Major James B. Montgomery, Medical Corps, Director of Physio Therapy after a few introductory remarks introduced Dr. Custis Lee Hall, Professor of Orthopedic Surgery at George Washington University, who addressed the members of the graduating class. He spoke on the "Value and Place of Physio Therapy in Medicine." He said in part:

"Ladies in the Graduating Class of Physio Therapy:

"I address you this afternoon, of course, as a representative of the medical profession especially interested in the reconstruction of chronic diseased people and other cases which represents to us the group known as orthopaedic surgery. This specialty has assumed, since the war, greater prominence due to the fact that the greater number of the patients in France and in the States were injured in such a way that it required the services of men trained in this specialty.

"The aides first in France blazed the way for a tremendous work. Their work was little understood or appreciated by the medical personnel. The other allied armies had had for some time courses in physio therapy treatment in their various hospitals and had learned the great need of it. We found that our American aides were of tremendous importance in reconstructing our men in France and in this country. The war undoubtedly taught us a great many new things in the care of disease and run-down conditions and people under the stress and strain of general activity of work. We find that our lessons of war experience are of tremendous value and we are doing a more satisfactory work because of what we have learned. We can shorten the time of incapacitation by the use of the methods you have learned. Your subject is the human body in its complexities and obscurity so far as diseases are concerned.

"Physio therapy has a tremendous place in modern medicine.

*Reprinted by permission from the Come Back.

It is a very necessary part of the treatment and rehabilitation of patients. It is just beginning to be realized that in the general hospitals, physio therapy is of need, and I am sure it will not be many years before physio therapy departments will be established in all general hospitals.

"More and more the medical profession is realizing the importance and necessity of carrying through the patient from whatever particular condition he may have to perfect health if possible.

"You young ladies have a wonderful career before you, and you may well be proud that you are graduates of Walter Reed Hospital. Your reputation has gone before you and you must live up to your reputation. Wherever you go the general public as well as the medical profession will know of your work and your place in the medical world is gradually being made for you so that your work can be appreciated. There is still much pioneer work to be done, but in a great measure physio therapy is established.

"You young ladies have a thorough grounding in anatomy and in disease and in the recognition of diseased conditions and the essentials of treatment, and your judgment has been accelerated.

"You could not possibly have had a better group of teachers or a better course than you got here. I have kept in touch with physio therapy here, and I know you young ladies will do credit to the instructors and the course that you have had. You have a great future before you. Your work is cut out for you in the way of helping humanity and there should be a tremendous impetus to the good that physio therapy can do for the general public."

General Merritte W. Ireland, Surgeon General of the Army, after congratulating the graduating class and wishing them success in their undertakings, presented the certificates of proficiency. Thirteen members of the graduating class have accepted appointments as Aides in Physio Therapy in the following U. S. Army hospitals: Walter Reed General Hospital, Washington, D. C.; William Beaumont General Hospital, El Paso, Texas; Fitzsimons General Hospital, Denver, Col.; and Letterman General Hospital, San Francisco, Cal.

Graduates are The Misses Kathryn Scholle Bier, Mary Adele Cover, Ester G. Cozad, Pauline M. Damon, Catherine Foster, Alice Freeman, Anne Gertrude Hamlin, Estelle R. Johnson, Eleanor T. Kelly, Elizabeth B. Kepes, Doris Bentley Laird, Nora Belle Luther, Margaret Neale Painter, Florence F. Pickard, Francis E. Weeks.

P. T. Course

"The 1924-1925 Training Course in Physio Therapy for Aides will be given at Walter Reed General Hospital, Army Medical Center, Washington, beginning Oct. 3rd, 1924, and continuing for a period of six months. Applicants must be graduated of accredited schools of Physical Education. For further information apply to: The Commanding Officer, Walter Reed General Hospital, Army Medical Center, Washington, D. C."

Here and There

WALTER REED NOTES

Major James B. Montgomery, for four years the Director of Physio Therapy has been transferred to Fitzsimons General Hospital, Denver, Col. Major and Mrs. Montgomery were presented with an electric grill and percolator, as an expression of appreciation from the P. T.'s. Major Benj. Norris from Fitzsimons has been transferred to Walter Reed to fill this vacancy.

Our sympathies are extended to Miss Marguerite Collins, who was called to Denver, by the death of her sister.

Lillian Barrett, Lucy McCabe and Ester Cozad were transferred to the Letterman General Hospital P. T. Dept., sailing from New York on the March 20th transport.

Mr. and Mrs. Raymond Mooney announce the birth of a son, Paul Clark, born on March 6, 1924. Mrs. Mooney is better known to P. T.'s as Katherine Robinson.

Wedding bells again—Jane Kennedy to James W. Dooner on March 1, 1924 in Baltimore, Md. They are living in Washington. All good wishes to you, Jane.

Mr. and Mrs. Kostka Mudd and their son have returned to San Francisco, after a two year tour of duty with the U. S. Geological Survey in the Hawaiian Island.

The Pennsylvania Physiotherapy Association which has recently been formed is proving of real value to its members. There have been several interesting and instructive lectures by eminent physicians of Philadelphia, among them Drs. R. Tait McKenzie, William J. Taylor and J. W. McConnell.

Mr. and Mrs. Gilbert Moreaux (Frances Philo) of 137 East 26th Street, New York, are sailing for Europe in June. They are to visit Mr. Moreaux's mother in Ostend, Belgium.

Membership Blank

Date.....

Name ..... Age.....

Permanent Address .....

Present Address .....

Preliminary Education .....

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Professional Training with dates .....

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Experience with dates .....

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Present occupation .....

Names of references with addresses.

(1) A former employer, a doctor preferably.

Name .....

Address .....

(2) A person to whom you have been known for at least five years.

Name .....

Addresses .....

Please do not pay dues until notified of acceptance.

Applicants will please return application blanks to the Secretary.

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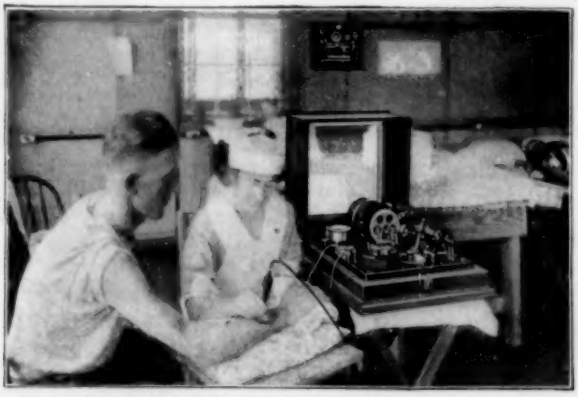

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